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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/770,932	02/03/2004	James W. Hendry	LC 0148 PUS	1624

7590 10/12/2006

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EXAMINER

MCDOWELL, SUZANNE E

ART UNIT	PAPER NUMBER
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1732

DATE MAILED: 10/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/770,932

Applicant(s)

HENDRY, JAMES W.

Examiner

Suzanne E. McDowell

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-14 and 16-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "30" and "34" have both been used to designate the gas pin assembly. It is believed that this is actually due to an error in the specification, at paragraph 35. "The gas pin assembly (34)" should be "The ejector pin assembly (34)".

Claim Rejections - 35 USC § 102/103

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 12, 14 and 16 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Shah et al. (US Patent 5,558,824). Shah et al. discloses the claimed limitations in Figure 2 (column 3, line 25-column 4, line 55). Specifically, Shah et al. teaches a control

valve (78), which is controlled by a pressure sensor (79) connected by a circuit (85) to a microprocessor (83). The microprocessor (83) provides signals to control the degree of opening of the control valve (78) (column 4, lines 36-40). This microprocessor, pressure sensor, circuit, are inherently "electrical" as claimed in instant claim 12, and operate as a pressure switch as claimed in instant claim 16. Further, the valve (78) taught by Shah et al. is capable of performing the intended function of instant claim 12. Shah et al. thereby anticipates claims 12, 14 and 16.

Alternatively, Shah et al. teaches the basic limitations of claims 12, 14 and 16, as discussed above. Shah et al. does not specifically teach that the valve (78) is electrically infinitely controlled. The claimed valve is generally well known in the art (instant specification, paragraph 24). It would have been obvious to a person of ordinary skill in the art at the time of the invention to use a generally well known valve, such as an electrically infinitely controlled valve, to further define the apparatus taught by Shah et al., in order to quickly and easily control the valve.

Claim Rejections - 35 USC § 103

5. Claims 13, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shah et al., as applied to claims 12, 14 and 16 above, and further in view of Guergov (US Patent 6,019,918). Shah et al. teaches the basic apparatus in Figure 2 (column 3, line 25-column 4, line 55); i.e., a control valve (78), which is controlled by a pressure sensor (79) connected by a circuit (85) to a microprocessor (83). The microprocessor (83) provides signals to control the degree of opening of the control valve (78) (column 4, lines 36-40).

Regarding claim 13, Shah et al. does not teach an ejector. Regarding claims 17 and 18, Shah et al. does not teach that the gas pin and ejector pin are combined into one assembly. Guergov teaches an

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apparatus for gas assist injection molding, including an ejector pin (288) and a gas injector (220) which, in Figure 16, are combined into one assembly. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use the ejector pin/gas pin assembly taught by Guergov to modify the apparatus taught by Shah et al., in order to remove the part from the mold. The motivation for combining Guergov with Shah et al. is that both are in the same field of endeavor, that of gas assist injection molding.

Response to Arguments

6. Applicant's arguments filed 9/15/06 have been fully considered but they are not persuasive. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Shah et al. is capable of performing the intended functions, except for the ejection limitations taught by Guergov. Guergov does not have to teach "how any gas counter pressure is relieved or vented" because Guergov is utilized to teach only an ejector pin and a gas injector which are combined into one assembly.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH**

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shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Suzanne E. McDowell whose telephone number is (571) 272-1205. The examiner can normally be reached on MWF 8:00am-6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on (571) 272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



SEM
September 27, 2006

SUZANNE E. MCDOWELL
PRIMARY EXAMINER